# P-3 Orion 11/14/17

**Aircraft:** P-3 Orion - WFF (See full schedule)
**Flight Number:** OIB-Ushuaia Science Flight #6
**Payload Configuration:** OIB - Ushuaia 2018
**Nav Data Collected:** No
**Total Flight Time:** 9.8 hours
**Submitted by:** Janet Letchworth on 11/14/17
**Flight Segments:**

| | | | |
|---|---|---|---|
| **From:** | SAWH | **To:** | SAWH |
| **Start:** | 11/14/17 13:45 Z | **Finish:** | 11/14/17 23:31 Z |
| **Flight Time:** | 9.8 hours | | |
| **Log Number:** | 18P006 | **PI:** | Nathan Kurtz |
| **Funding Source:** | Bruce Tagg - NASA - SMD - ESD Airborne Science Program | | |
| **Purpose of Flight:** | Science | | |
| **Comments:** | Seelye Loop South sea ice flight line. | | |

**Flight Hour Summary:**

| | 18P006 |
|---|---|
| **Flight Hours Approved in SOFRS** | 151 |
| **Total Used** | 156 |
| **Total Remaining** | -5 |

**18P006 Flight Reports**

| Date | Flt # | Purpose of Flight | Duration | Running Total | Hours Remaining | Miles Flown |
|---|---|---|---|---|---|---|
| 10/17/17 | OIB - Airworthiness Test Flight | Check | 1.1 | 1.1 | 149.9 | |
| 10/18/17 | OIB - Project Test Flight | Check | 3.5 | 4.6 | 146.4 | |
| 10/19/17 | OIB PTF - Radar | Check | 4.5 | 9.1 | 141.9 | |
| 10/23/17 | OIB - Transit leg #1 | Transit | 7.1 | 16.2 | 134.8 | |
| 10/24/17 | OIB - Transit leg #2 | Transit | 6.5 | 22.7 | 128.3 | |
| 10/25/17 | OIB - Transit leg #3 | Transit | 7 | 29.7 | 121.3 | |
| 10/29/17 - 10/30/17 | OIB-Ushuaia Science Flight #1 | Science | 9.7 | 39.4 | 111.6 | |
| 10/31/17 | OIB-Ushuaia Science Flight #2 | Science | 8.9 | 48.3 | 102.7 | |
| 11/03/17 | OIB-Ushuaia Science Flight #3 | Science | 9 | 57.3 | 93.7 | |
| 11/04/17 | OIB-Ushuaia Science Flight #4 | Science | 9.3 | 66.6 | 84.4 | |
| 11/12/17 | OIB-Ushuaia Science Flight #5 | Science | 9.5 | 76.1 | 74.9 | |
| 11/14/17 | OIB-Ushuaia Science Flight #6 | Science | 9.8 | 85.9 | 65.1 | |
| 11/16/17 | OIB-Ushuaia Science Flight #7 | Science | 9.1 | 95 | 56 | |
| 11/21/17 | OIB-Ushuaia Science Flight #8 | Science | 9.4 | 104.4 | 46.6 | |
| 11/22/17 - 11/23/17 | OIB-Ushuaia Science Flight #9 | Science | 9.9 | 114.3 | 36.7 | |
| 11/24/17 | OIB-Ushuaia Science Flight #10 | Science | 9.6 | 123.9 | 27.1 | |
| 11/25/17 - 11/26/17 | OIB-Ushuaia Science Flight #11 | Science | 9.5 | 133.4 | 17.6 | |

| | | | | | |
|---|---|---|---|---|---|
| 11/27/17 | OIB-Ushuaia SAWH-SCDA Transit Flight | Transit | 7 | 140.4 | 10.6 |
| 11/28/17 | OIB-Ushuaia SCDA-MROC Transit Flight | Transit | 7 | 147.4 | 3.6 |
| 11/29/17 | OIB-Ushuaia MROC-KNGU Transit Flight | Transit | 6.3 | 153.7 | -2.7 |
| 11/29/17 | OIB-Ushuaia KNGU-KWAL Transit Flight | Transit | 0.8 | 154.5 | -3.5 |
| 12/04/17 | OIB-Post Mission Calibration Flight | Science | 1.5 | 156 | -5 |

*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

**Related Science Report:**

## OIB - P-3 Orion 11/14/17 Science Report

**Mission:** OIB
**Mission Summary:**

OIB successfully flew the Seelye Loop South sea ice mission. This mission represents a continuation of the IceBridge time series, repeating the southern portion of the same mission flown almost every year of Operation IceBridge. It targets gradients in sea ice freeboard and thickness along the “gate” connecting the tip of the Antarctic Peninsula with Cape Norvegia – although we cannot reach all the way to Cape Norvegia in the P-3 due to range constraints.

This was an extraordinarily difficult weather call today as there was stark disagreement in model forecasts for the region, some models showed the line clearing out later in the day while others showed we would not be able to get much of any data through the clouds. Imagery from early in the morning also showed poor conditions throughout which made it difficult to calibrate which model might be best representing the actual situation. Despite the uncertainty the mission was launched as an acceptable risk. This was the right call to make, though there were clouds along portions of the line which we were not able to get under, we still obtained large stretches of good coverage to effectively measure the gradient in sea ice thickness across the line. All instruments performed well today, ATM and DMS estimate a loss of about half the data due to clouds, while snow radar obtained data throughout the line except for some of the altitude transition points.

Data volumes
ATM: T6:  49 Gb  T7:  76 Gb
FLIR:  6.0 Gb
Cambot: 12 Gb
KT19: 12 Mb
DMS: 26.4 Gb
MCoRDS: did not operate
Gravity/Magnetometer: 3 Gb
Accumulation radar: 156 Gb
Snow/Ku radar: 670 Gb
data on: 1559
data off: 1848

**File:**
Seelye_Loop_South_map.pdf
**Submitted by:** Nathan T. Kurtz on 11/14/17

Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

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